

REMARKS

Claims 1-9 have been examined. Claims 1-9 have been rejected under the doctrine of obviousness-type double patenting, under 35 U.S.C. § 112, second paragraph, and under 35 U.S.C. § 103(a).

I. Double Patenting Rejection

The Examiner has rejected claims 1-9 under the judicially created doctrine of obviousness type double patenting as being unpatentable over at least claims 5-7 (and similar claims) of U.S. Patent 6,273,669. The '669 patent is based on the parent Application to the present Application.

Applicants file herewith a Terminal Disclaimer, thereby overcoming the rejection of claims 1-9.

II. Rejection under 35 U.S.C. § 112, second paragraph.

Claims 1-9 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In particular, the Examiner would like Applicant to recite how and where certain components are coupled together. However, such amendments would unduly narrow the claim scope. As stated in MPEP § 2173.04, breadth of a claim is not to be equated with indefiniteness. Further, where Applicant has not otherwise indicated that he or she intends the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. §112,

second paragraph. Accordingly, Applicant submits that the preamble and body of claims 1-9 clearly set forth the scope of the intended invention.

In regard to claims 1 and 3, the Examiner maintains that no motive means to tilt the mast and lift the fork have been set forth, which renders the claims incomplete. However, as claimed, the control valve controls the tilting speed of the mast and the lifting and lowering speeds of the fork. Applicant submits that no further structure needs to be cited in the claim since the addition of other structure would unduly narrow the claim scope.

In regard to claim 1, the Examiner maintains that no body structure has been set forth. Applicant respectfully disagrees with the Examiner because precise details of the forklift body structure are neither relevant nor necessary to this claim. Further, amending the claim to recite additional structure would unduly narrow the claim scope.

The Examiner also maintains that it is not understood how and where the fork is structurally located on the mast. However, as it stands, claim 1 states that the fork is disposed on the mast and thus, clearly defines the metes and bounds of this limitation. For example, if an accused device has a fork disposed on a mast, then it falls within the scope of the limitations. On the other hand, if the fork of the accused device is not disposed on the mast, then it falls outside the scope of the limitation. Therefore, the claimed limitation clearly satisfies the requirements of § 112, second paragraph. Further, amending the claim to recite additional structure would unduly narrow the scope of the claim.

In regard to claim 3, the Examiner maintains that no forklift structure, e.g. wheels, has been set forth. Applicant respectfully disagrees with the Examiner because precise details of the

forklift structure are neither relevant nor necessary to this claim. As it stands, claim 3 clearly sets forth structure necessary for the intended scope of the claim. For example, the mast is slidably connected to the fork. The operating lever is operably connected to the controller. The controller is operably connected to the control valve, and the control valve is operably connected to the mast and fork. Therefore, as required under 35 U.S.C. § 112, second paragraph, there is sufficient interrelation of all recited elements. Further, amending the claim to recite additional structure would unduly narrow the claim scope.

The Examiner also alleges that it is not understood how and where the fork is structurally mounted on the mast. However, as it stands, claim 3 clearly defines the metes and bounds of this limitation. For example, if an accused device has a fork slidably coupled to a mast, then it falls within the scope of the limitation. On the other hand, if the fork of the accused device is not slidably coupled to the mast, then it falls outside the scope of the limitation. Therefore, the scope of the limitation at issue clearly satisfies the requirement of § 112, second paragraph. Further, amending the claim to recited additional structure would unduly narrow the scope of the claim.

With respect to the remaining grounds of the §112, second paragraph, rejection, Applicant submits that such rejections are overcome by the amendments made to claims 1 and 3.

III. Rejection under 35 U.S.C. § 103(a) over JP 04-365,798 to Momota (“Momota”)

Claims 3-9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Momota.

A. Claim 3

Applicant submits that claim 3 is patentable over the cited reference. For example, claim 3 recites a load handling apparatus that comprises a controller. The controller outputs at least one signal to a control valve to control the tilting of a mast and the sliding of the fork. Furthermore, the controller outputs the signal based on a switching state of a switch and a tilting state of an operating lever.

The Examiner maintains that oil control valve 1 and solenoid valve 2 of Momota suggest the claimed controller (Abstract, Figure 1). However, assuming that the Examiner's reading of the reference is correct, Momota does not disclose the claimed control valve or the claimed interrelationship between the controller and the control valve. For example, the Examiner has not even alleged that the reference suggests the claimed control valve. Furthermore, the alleged controller 1, 2 does not output signals to anything that represents a control valve (Figure 1). Accordingly, Applicant submits that the controller 1,2 does not output signals to a control valve based on both a switching state of the switch 3 and a tilting state of the operating lever 11.

In an attempt to remedy the deficient teachings of Momota, the Examiner states that modifying the lever 11, switch 3 and controller 1, 2 to have the claimed structure and interrelation, would have been obvious. However, Applicant respectfully disagrees and submits that the Examiner's unsupported reliance on the "obvious design choice" rationale is improper and does not satisfy the requirements of 35 U.S.C. § 103.

In addition, Applicant submits that the above arguments suggest the Examiner is using impermissible hindsight in maintaining his rejections. Hindsight has repeatedly been held to be

improper and ineffective in supporting an argument of *prima facie* obviousness. *See, e.g., In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992); *In re Bond*, 15 USPQ2d 1556 (Fed. Cir. 1990); *In re Laskowski*, 10 USPQ2d 1397 (Fed. Cir. 1989).

Also, assuming *arguendo* that the Examiner subsequently maintains that the circuit 30 is the claimed controller, Applicant submits that claim 3 is still patentable over the cited reference. For example, Momota discloses an apparatus that comprises an oil control valve 1, a solenoid valve 2, an operating lever 11 having a switch 3, an electric circuit 30, a lift cylinder 91, and a tilt cylinder 92. As shown in Figs. 2 and 3, the operating lever 11 is mechanically coupled to the oil control valve 1 via various pins and levers, and when the lever 11 tilts, the pins and levers appear to mechanically adjust the position of the oil control valve 1. Moreover, based on the position of the oil control valve 1, the valve 1 seems to apply hydraulic pressure to the solenoid valve 2.

Also, as shown in Fig. 1, the switch 3 on the operating lever 11 is connected to the electric circuit 30, and the electric circuit 30 is connected to an electromagnetic portion 21 of the solenoid valve 2. Furthermore, the electric circuit 30 adjusts the position of the solenoid valve 1 based on the switching state of the switch 3 (Constitution, lines 2-5).

Based on the switching state of the switch 3 and the amount of hydraulic pressure applied from the oil control valve 1, the solenoid valve 2 selectively applies hydraulic pressure to the lift cylinder 91 and the tilt cylinder 92. When hydraulic pressure is applied to the lift cylinder 91, the fork 86 of the apparatus is raised or lowered, and when hydraulic pressure is applied to the tilt cylinder 92, the mast 85 is tilted.

Assuming *arguendo* that the electric circuit 30 corresponds to a controller, it supplies a signal to the electromagnetic portion 21 of the solenoid valve 2 based only on the switching state of the switch 3 and not on the tilting state of the lever 11. Thus, Momota does not contain the claimed controller that outputs a signal to a control valve based on both a switching state of a switch and a tilting state of an operating lever.

In light of the above arguments, Applicant submits that claim 3 is patentable over the cited reference.

C. Claims 4-9

Since claims 4-9 depend, either directly or indirectly from claim 3, Applicant submits that such claims are patentable at least by virtue of their dependency.

IV. Rejection under 35 U.S.C. § 103(a) over Momota in view of JP 08-268,696 to Tanaka (“Tanaka ‘696”).

Claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Momota, as applied to claims 3-9 above, and further in view of Tanaka ‘696.

A. Claim 1

Applicant submits that claim 1 is patentable over the cited references. For example, claim 1 recites an operating lever that prevents lifting and lowering of a fork when a switch is changed from a first switching state to a second switching state while the operating lever is tilted.

The Examiner maintains that Momota, in view of Tanaka '696, suggests such a feature. However, Tanaka '696 discloses a motor control method for hydraulics of a lift truck. When the angle of operating lever 7 is changed, a level angle detector 7A sends a signal to controller 9 (Abstract). Controller 9 then sends a signal to solenoid proportional control valve 10, which in turns sends a signal to a hydraulic use motor 11 and driving pump 12, to control movement of the forklift (Abstract). There is no disclosure or suggestion in Tanaka '696 that operating lever 7 prevents lifting and lowering of a fork when a switch is changed from a first switching state to a second switching state while the operating lever 7 is tilted.

In addition, Applicant submits that Momota fails to cure the deficient teachings of Tanaka '696. Accordingly, Applicant submits that claim 1 is patentable over the cited references, and respectfully requests the Examiner to withdraw the rejection.

B. Claim 2

Since claim 2 depends from claim 1, Applicant submits that such claim is patentable at least by virtue of its dependency.

V. Rejection under 35 U.S.C. § 103(a) over Momota in view of JP 08-282,994 to Tanaka ("Tanaka '994").

Claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Momota, as applied to claims 3-9 above, and further in view of Tanaka '994.

A. Claim 1

Applicant submits that claim 1 is patentable over the cited references. For example, claim 1 recites an operating lever that prevents lifting and lowering of a fork when a switch is changed from a first switching state to a second switching state while the operating lever is tilted.

The Examiner maintains that Momota, in view of Tanaka '994, suggests such a feature. However, Tanaka '994 discloses the lowering of lift speed by using a lift height detector 11 (Abstract). CPU 22 calculates an amount of change in lift height from data stored in memory 23 (Abstract). Lift speed is then compared to the change in lift height to output an appropriate control signal (Abstract). In other words, Tanaka '994 is related to control of lift speed, and there is no disclosure or suggestion in Tanaka '994 that an operating lever prevents lifting and lowering of a fork when a switch is changed from a first switching state to a second switching state while the operating lever is tilted.

In addition, Applicant submits that Momota fails to cure the deficient teachings of Tanaka '994. Accordingly, Applicant submits that claim 1 is patentable over the cited references and respectfully requests the Examiner to withdraw the rejection.

B. Claim 2

Since claim 2 depends from claim 1, Applicant submits that such claim is patentable at least by virtue of its dependency.

Amendment under 37 C.F.R. § 1.111
U.S. Application No. 09/883,279

VI. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

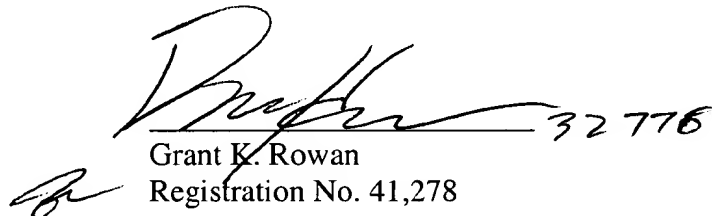
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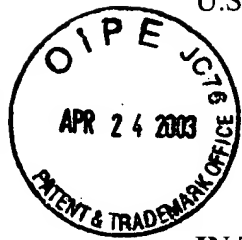


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Date: April 24, 2003



APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Twice amended) A load handling apparatus for a [counterbalance type] forklift, comprising:
 - one tiltable operating lever disposed on a body of the forklift;
 - a mast tiltable in an anteroposterior direction and disposed on the body of said forklift;
 - a liftable fork disposed on said mast;
 - a solenoid proportional control valve, in which a tilting speed of said mast and lifting and lowering speeds of said fork are controlled by a degree of opening of said solenoid proportional control valve, said degree of opening being proportional to a tilting angle of said operating lever;
 - a switch attached to said operating lever; and
 - a controller that tilts said mast when said operating lever is tilted and said switch is in a first switching state, that lifts or lowers said fork when said operating lever is tilted and said switch is in a second switching state, and that prevents lifting and lowering of said fork when said switch is changed from said first switching state to said second switching state while said operating lever is tilted.

3. (Once Amended) A load handling apparatus for use with a forklift, comprising:
 - a mast disposed on a body of the forklift;
 - a fork that is slidably coupled to said mast;

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a tiltable operating lever;

a switch coupled to said operating lever;

at least one control valve that controls a tilting of said mast and a sliding of said fork with respect to said mast; and

a controller that outputs at least one signal to said at least one control valve to control said tilting of said mast and said sliding of said fork, wherein said controller outputs said at least one signal based on a switching state of said switch and a tilting state of said operating lever.